

REMARKS

The Office Action dated March 21, 2007 has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 1, 6, and 11, are amended to more particularly point out and distinctly claim the subject matter of the present invention. New claim 12 is added. No new matter is added. Claims 1-12 are respectfully submitted for consideration.

The Office Action objected to claim 11 because of a typographical informality. Claim 11 is amended to correctly spell “communicating”. Accordingly, withdrawal of the objection to claim 11 is respectfully requested.

The Office Action rejected claims 1, 2, 4-7 and 9-11 under 35 U.S.C. 103(a) as being obvious over Applicants Admitted Prior Art, paragraphs [0003] – [0007] of the present specification (APA), in view of US Patent No. 6,101,168 to Chen (Chen). The Office Action took the position that APA disclosed all of the features of these claims except controlling a transmission power by setting a lower target SIR for retransmission of a retransmission packet than the target SIR for a first transmission of a corresponding packet. The Office Action asserted that Chen disclosed this feature. Applicants submit that the cited references, taken individually or in combination, fail to disclose or suggest all of the features recited in any of the pending claims.

Claim 1, from which claims 2-5 depend, is directed to a communication method including communicating between at least two transceivers of a radio system using a

packet switched connection through a radio interface. A quality of the packet switched connection is measured. A target Signal Interference Ratio is adjusted based on the quality measured. A request to retransmit at least one packet having a failed reception is transmitted from a transceiver receiving packets. At least one retransmission packet requested is retransmitted from a transceiver transmitting packets, as a response to the request. Transmission power is controlled by setting a lower target Signal Interference Ratio for retransmission of a retransmission packet than the target Signal Interference Ratio for a first transmission of a corresponding packet.

Claim 6, from which claims 7-10 depend, is directed to a communication arrangement. At least two transceivers of the radio system are configured to communicate with a packet switched connection through a radio interface. A measuring mechanism is configured to measure a quality of the packet switched connection. An adjusting mechanism is configured to adjust a target Signal Interference Ratio based on the quality measured. A transceiver is configured to receive packets and to transmit a request to retransmit when there is a failure to receive at least one packet. A transceiver configured to transmit packets and configured to retransmit at least one retransmission packet requested as a response to the request. A controller is configured to set a lower target Signal Interference Ratio for retransmission of a packet than the target Signal Interference Ratio for a first transmission of the corresponding packet.

Claim 11 is directed to a communication arrangement. A communicating means is configured for communicating between at least two transceivers of a radio system using

a packet switched connection through a radio interface. A measuring means is configured for measuring a quality of the packet switched connection. An adjusting means is configured for adjusting a target Signal Interference Ratio based on the quality measured. A transmitting means is configured for transmitting, from a transceiver receiving packets, a request to retransmit at least one packet having a failed reception. A retransmitting means is configured for retransmitting, from a transceiver transmitting packets, at least one retransmission packet requested as a response to the request. A controlling means is configured for controlling a transmission power by setting a lower target Signal Interference Ratio for retransmission of a retransmission packet than the target Signal Interference Ratio for a first transmission of a corresponding packet.

Applicants submit that each of the pending claims recites features that are neither disclosed nor suggested in any of the cited references.

APA describes an example WCDMA (Wide band CDMA) radio system, in which the power control mechanism comprises an inner loop power control and an outer loop power control. As stated above, the Office Action admitted that APA failed to disclose or suggest at least the feature of “controlling a transmission power by setting a lower target SIR for retransmission of a retransmission packet than the target SIR for a first transmission of a corresponding packet”. The Office Action relied on Chen to disclose this feature.

Applicants respectfully submit that the cited references fail to disclose or suggest at least the feature of “controlling a transmission power by setting a lower target SIR for

retransmission of a retransmission packet than the target SIR for a first transmission of a corresponding packet” as recited in claim 1 and similarly recited in claims 6 and 11. More specifically, Applicants respectfully submit that Chen fails to cure the admitted deficiencies of APA.

Chen is directed to retransmission of data using symbol accumulation wherein the packet received in error is retransmitted at a lower energy-per-bit level concurrently in the same frame with the new packet. The destination device receives the data transmission and retransmission, demodulates the signal, and separates the received data into the new and retransmitted packet.

However, Applicants submit that Chen is silent regarding setting a lower target SIR for retransmission. The Office Action asserted that this feature is disclosed in the Abstract, However, in Chen, the re-transmission always has lower power than a new packet.

According to embodiments of the presently claimed invention, the retransmission may have higher power than a new packet if the quality of the connection drops. Hence, the transmission power in the present application is relative to the interference (see Figs. 3A and 3B). The solution in the present application lowers the absolute transmission power of the re-transmission compared to the first transmission of a particular packet, if the channel keeps unchanged (see paragraph [0035] of the present specification). That avoids the pitfalls present in prior art such as Chen. Thus, Chen fails to mention, disclose or suggest setting an absolute lower target SIR for retransmission or taking into account

interference and setting a relatively lower target SIR. Therefore, Chen fails to cure the admitted deficiencies of APA.

Applicants submit that because claims 2, 4, 5, 7 and 9-10 depend from claims 1 and 6, these claims are allowable at least for the same reasons as claims 1 and 6, as well as for the additional features recited in these dependent claims.

Based at least on the above, Applicants submit that the cited references fail to disclose or suggest all of the features recited in claims 1, 2, 4-7 and 9-11. Accordingly, withdrawal of the rejection under 35 U.S.C. 103(a) is respectfully requested.

The Office Action rejected claims 3 and 8 under 35 U.S.C. 103(a) as being obvious over APA and Chen, in further view of US Patent No. 6,507,572 to Kumar et al. (Kumar). The Office Action took the position that APA and Chen disclosed all of the features of these claims except setting a lower target Signal Interference Ratio for a dedicated control channel between transmissions of packets than during transmissions of the packets. The Office Action asserted that Kumar disclosed this feature. Applicants submit that the cited references taken individually or in combination, fail to disclose or suggest all of the features recited in any of the above claims. Specifically, APA and Chen are deficient at least for the reasons discussed above, and Kumar fails to cure these deficiencies.

Kumar is directed to a back haul architecture that enables primary transfer (i.e., transfer of the designation of primary base station from one base station to another). A frame selection/distribution (FSD) function queues packets of forward-link data, to which

sequence numbers have been assigned, for packet-mode transmission over the back haul only to one base station (the current primary base station) here the packets are again queued for over-the-air transmission to the mobile unit. However, Applicants respectfully submit that Kumar fails to cure the significant deficiencies of APA and Chen discussed above. Further, Applicants submit that Kumar is silent with regards to setting a lower target Signal Interference Ratio for a dedicated control channel between transmissions of packets than during transmissions of the packets.

Based at least on the above, Applicants respectfully submit that the cited references fail to disclose or suggest all of the features recited in claims 3 and 8. Accordingly, withdrawal of the rejection under 35 U.S.C. 103(a) is respectfully requested.

As stated above, new claim 12 is added. Applicants respectfully submit that claim 12 recites features that are neither disclosed nor suggested in any of the cited references.

Applicants respectfully submit that each of claims 1-12 recites features that are neither disclosed nor suggested in any of the cited references. Accordingly, it is respectfully requested that each of claims 1-12 be allowed, and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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Enclosures: Petition for Extension of Time
Additional Claim Fee Transmittal
Check No. 16945